

## Synonym

IL2RB,RP5-1170K4.6,CD122,P70-75

#### Source

Human IL-2 R beta, Fc Tag(ILB-H5253) is expressed from human 293 cells (HEK293). It contains AA Ala 27 - Asp 239 (Accession # NP\_000869.1). Predicted N-terminus: Ala 27

### **Molecular Characterization**

IL-2 R beta(Ala 27 - Asp 239) NP 000869.1 Fc(Pro 100 - Lys 330) P01857

This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 51.0 kDa. The protein migrates as 60-65 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

### **Endotoxin**

Less than 1.0 EU per µg by the LAL method.

## **Purity**

>95% as determined by SDS-PAGE.

### **Formulation**

Lyophilized from  $0.22~\mu m$  filtered solution in 50~mM Tris, 100~mM Glycine, 150~mM NaCl, pH7.5 with trehalose as protectant.

Contact us for customized product form or formulation.

### Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

# Storage

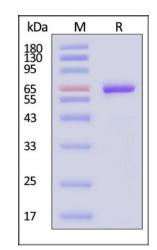
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

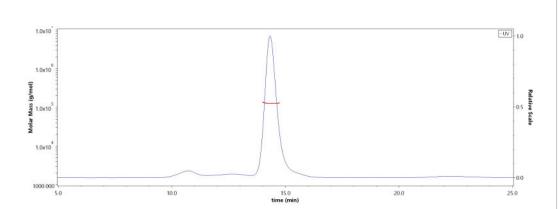
## **SDS-PAGE**



Human IL-2 R beta, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

# **Bioactivity-ELISA**

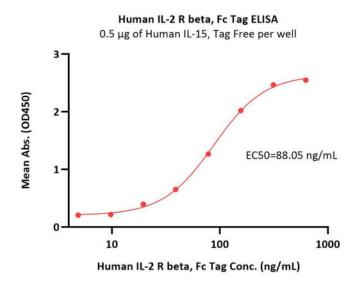
### **SEC-MALS**

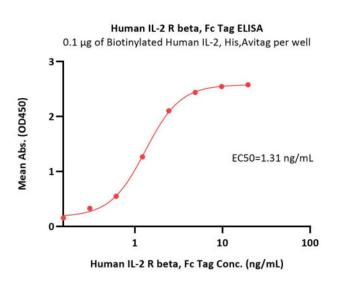


The purity of Human IL-2 R beta, Fc Tag (Cat. No. ILB-H5253) is more than 85% and the molecular weight of this protein is around 120-135 kDa verified by SEC-MALS.

Report



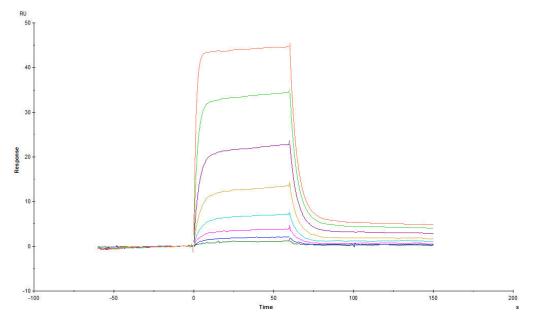




Immobilized Human IL-15, premium grade (Cat. No. IL5-H4117) at 5  $\mu$ g/mL (100  $\mu$ L/well) can bind Human IL-2 R beta, Fc Tag (Cat. No. ILB-H5253) with a linear range of 5-156 ng/mL (Routinely tested).

Immobilized Biotinylated Human IL-2, His,Avitag (Cat. No. IL2-H82E4) at 1  $\mu$ g/mL (100  $\mu$ L/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5  $\mu$ g/well) plate can bind Human IL-2 R beta, Fc Tag (Cat. No. ILB-H5253) with a linear range of 0.3-2 ng/mL (Routinely tested).

## **Bioactivity-SPR**



Human IL-2 R beta, Fc Tag (Cat. No. ILB-H5253) captured on CM5 chip via anti-human IgG Fc antibody can bind IL-2, Tag Free with an affinity constant of 0.473 μM as determined in a SPR assay (Biacore T200) (QC tested).

# Background

Interleukin-2 receptor (IL-2R) is a heterotrimeric protein expressed on the surface of certain immune cells, such as lymphocytes, that binds and responds to a cytokine called IL-2. The IL-2R is made up of 3 subunits -  $\alpha$  (CD25),  $\beta$  (CD122) and  $\gamma$  (CD132) - non-covalently associating. The  $\alpha$  and  $\beta$  chains are involved in binding IL-2, while signal transduction following cytokine interaction is carried out by the  $\gamma$ -chain, along with the  $\beta$  subunit.

CD122 is also known as IL2R beta, is a member of the type I cytokine receptor family. CD122 is the receptor for interleukin-2 and is involved in receptor mediated endocytosis and transduces the mitogenic signals of IL2.

# **Clinical and Translational Updates**

